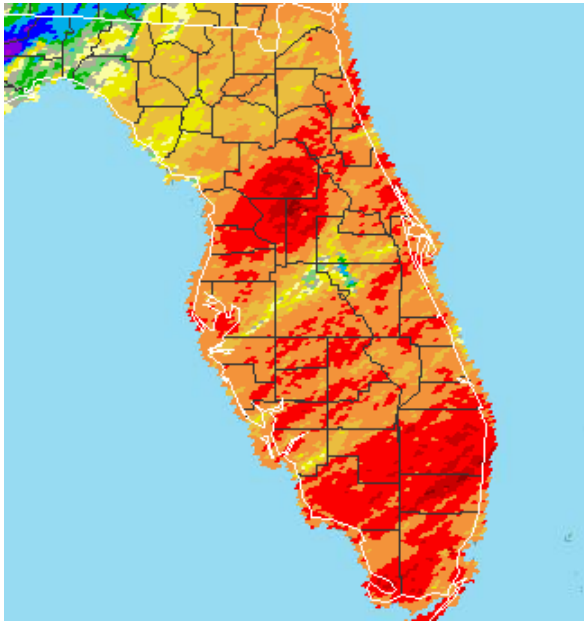


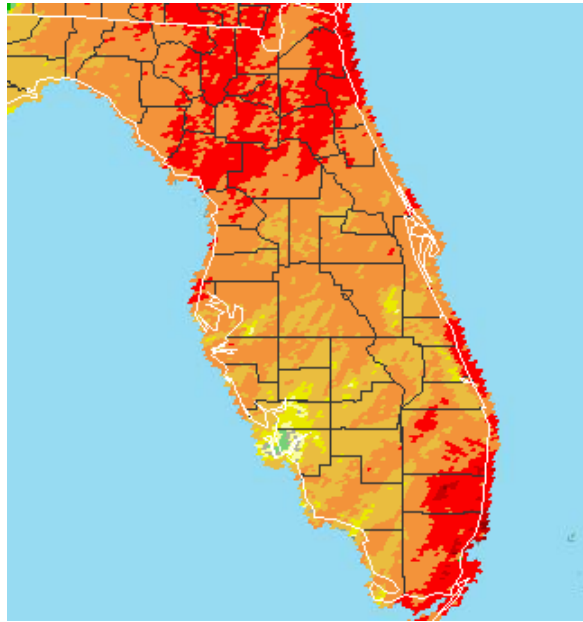
So Just How Dry Has It Been Across West Central And Southwest Florida?

The typical "dry season" has turned out to be even drier than normal across West Central and Southwest Florida. We have had numerous cold fronts move across the area, but most of these did not produce much rainfall and left cool dry conditions in their wake. This can be seen in the monthly percent of normal rainfall graphics below where large portions of the region have seen less than 50 percent of normal rainfall each of the last four months.

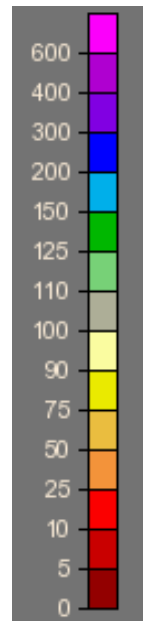
November 2008



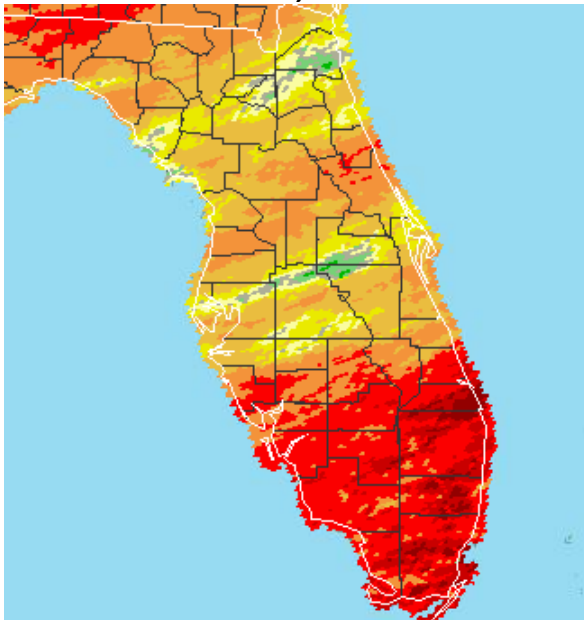
December 2008



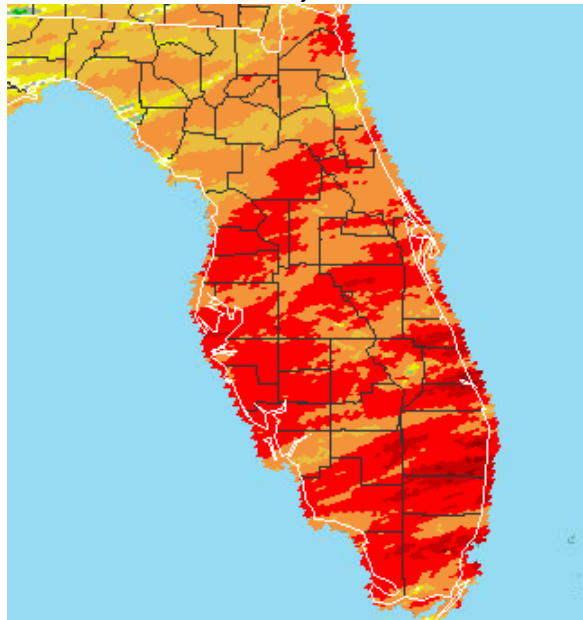
% of Normal



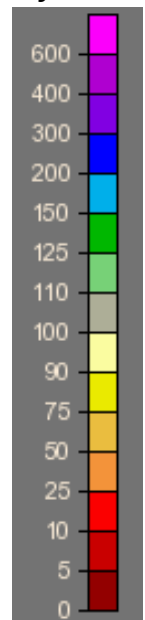
January 2009



February 2009



% of Normal



This can be verified by looking at the total rainfall at some locations across the area for the time period of November 2008 through February 2009, as indicated in Table 1. These dry conditions have placed a few spots in the top ten driest for this time period, as shown in Table 2. Also, in Table 3 is a comparison of the rainfall amounts that occurred during the last two November to February timeframes.

Table 1: The table below list the November 2008 through February 2009 total rainfall in inches, the normal for this time period and the percent of normal (based on 1971-2000 normals) at some sites across the region.

Observing Site	County	Rainfall		
		Total Nov 08 to Feb 09	Normal Rainfall Total	Percent of Normal
Chiefland 5 SE	Levy	8.17	13.76	59%
Bushnell 2 E	Sumter	2.63	11.15	24%
Brooksville Chin Hill	Hernando	3.53	11.35	31%
St. Leo	Pasco	4.72	11.96	40%
Tarpon Springs Swg Plt	Pinellas	3.43	11.66	29%
St Pete/Albert Whitted	Pinellas	4.38	10.27	43%
Tampa Int'l	Hillsborough	4.97	8.86	56%
Hillsborough Rvr St Pk	Hillsborough	5.40	12.47	43%
Plant City	Hillsborough	5.29	10.45	51%
Lakeland Linder	Polk	6.52	9.44	69%
Mountain Lake	Polk	4.03	9.14	44%
Winter Haven	Polk	5.18	9.62	54%
Bradenton 5 ESE	Manatee	4.55	10.40	44%
Parrish	Manatee	5.35	10.48	51%
Fort Green 12 WSW	Manatee	5.29	9.41	56%
Sarasota-Bradenton Int'l	Manatee	4.18	10.40	40%
Wauchula 2 N	Hardee	4.24	8.98	47%
Myakka River St Pk	Sarasota	4.47	10.62	42%
Venice	Sarasota	4.51	9.25	49%
Arcadia	Desoto	2.26	8.40	27%
Avon Park 2 W	Highlands	3.66	9.03	41%
Desoto City 8 SW	Highlands	3.13	8.80	36%
Archbold Bio Stn	Highlands	2.64	8.72	30%
Punta Gorda 4 ESE	Charlotte	2.72	8.18	33%
Fort Myers/Page Field	Lee	2.73	7.62	36%

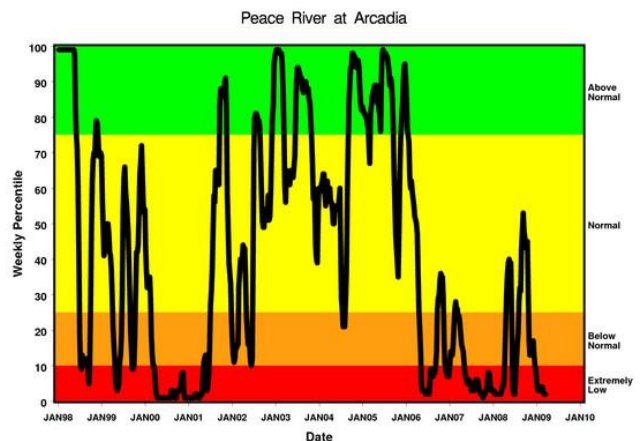
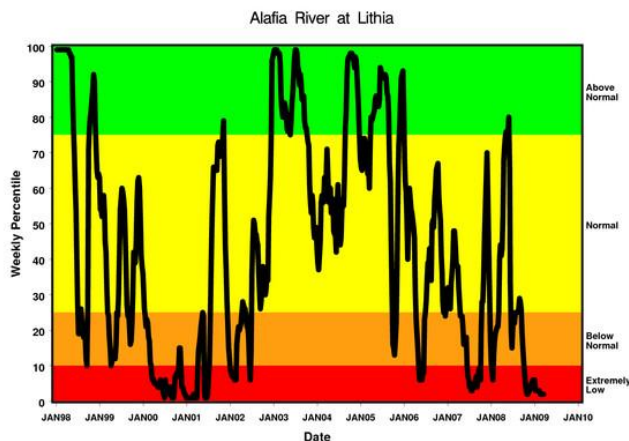
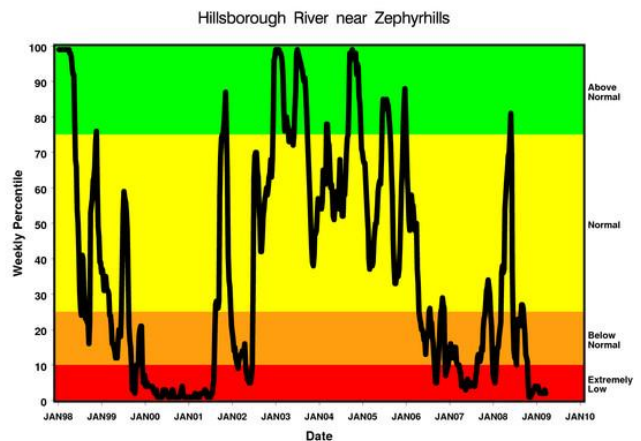
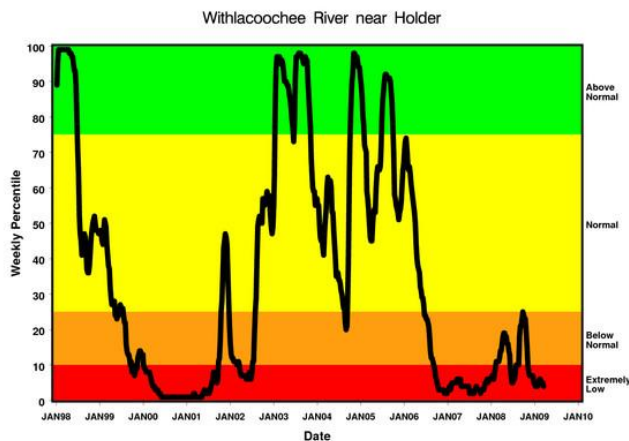
Table 2: The table below list the current November to February total rainfall in inches and what rank this is, as well as the driest November to February and what year it occurred.

Observing Site	Rainfall		Driest/ Ending Year	Year Records Began
	Total Nov 08 to Feb 09	Rank		
Chiefland 5 SE	8.17	9th	2.51/1957	1956
Bushnell 2 E	2.63	2nd	2.22/1950	1948
Brooksville Chin Hill	3.53	2nd	2.16/1907	1892
St. Leo	4.72	9th	2.26/1907	1895
Tarpon Springs Swg Plt	3.43	5th	2.20/1950	1892
St Pete/Albert Whitted	4.38	11th	2.05/1976	1914
Tampa Int'l	4.97	22nd	1.55/1950	1890
Hillsborough Rvr St Pk	5.40	10th	3.10/1944	1943
Plant City	5.29	18th	1.43/1907	1892
Lakeland Linder	6.52	27th	1.63/1935	1915
Mountain Lake	4.03	9th	1.80/2001	1935
Winter Haven	5.18	8th	2.78/1944	1941
Bradenton 5 ESE	4.55	5th	1.55/1976	1965
Parrish	5.35	7th	1.96/1976	1957
Fort Green 12 WSW	5.29	10th	1.77/1950	1948
Sarasota-Bradenton Int'l	4.18	6th	1.85/1976	1948
Wauchula 2 N	4.24	15th	2.24/2001	1933
Myakka River St Pk	4.47	8th	2.35/1944	1943
Venice	4.51	7th	2.59/1976	1955
Arcadia	2.26	5th	1.55/1911	1899
Avon Park 2 W	3.66	12th	0.89/1907	1901
Desoto City 8 SW	3.13	3rd	1.08/1950	1947
Archbold Bio Stn	2.64	3rd	0.88/2001	1969
Punta Gorda 4 ESE	2.72	3rd	1.09/2001	1965
Fort Myers/Page Field	2.73	T-11th	0.45/2001	1902

Table 3: The table below compares the November 2007 through February 2008 and November 2008 through February 2009 total rainfall in inches, and list the normal rainfall amount for this time period (based on 1971-2000 normals)at some sites across the region.

Observing Site	County	Rainfall Total Nov 07 to Feb 08	Rainfall Total Nov 08 to Feb 09	Normal Rain Total
Chiefland 5 SE	Levy	9.20	8.17	13.76
Bushnell 2 E	Sumter	7.20	2.63	11.15
Brooksville Chin Hill	Hernando	10.51	3.53	11.35
St. Leo	Pasco	10.03	4.72	11.96
Tarpon Springs Swg Plt	Pinellas	9.04	3.43	11.66
St Pete/Albert Whitted	Pinellas	10.28	4.38	10.27
Tampa Int'l	Hillsborough	8.23	4.97	8.86
Hillsborough Rvr St Pk	Hillsborough	8.67	5.40	12.47
Plant City	Hillsborough	6.24	5.29	10.45
Lakeland Linder	Polk	7.47	6.52	9.44
Mountain Lake	Polk	5.77	4.03	9.14
Winter Haven	Polk	7.60	5.18	9.62
Bradenton 5 ESE	Manatee	4.53	4.55	10.40
Parrish	Manatee	5.72	5.35	10.48
Fort Green 12 WSW	Manatee	6.40	5.29	9.41
Sarasota-Bradenton Int'l	Manatee	4.46	4.18	10.40
Wauchula 2 N	Hardee	5.16	4.24	8.98
Myakka River St Pk	Sarasota	6.13	4.47	10.62
Venice	Sarasota	4.66	4.51	9.25
Arcadia	Desoto	5.51	2.26	8.40
Avon Park 2 W	Highlands	3.59	3.66	9.03
Desoto City 8 SW	Highlands	3.75	3.13	8.80
Archbold Bio Stn	Highlands	5.08	2.64	8.72
Punta Gorda 4 ESE	Charlotte	4.03	2.72	8.18
Fort Myers/Page Field	Lee	6.25	2.73	7.62

So how bad is it really? Let's take a look at the flow of a few of the rivers across the region. River flows naturally fluctuate seasonally over West Central and Southwest Florida, with the highest flows normally seen during and immediately after the rainy season (June-September), and the lowest flows at the end of the dry season (October-May). To gage the health of the river, it's important to compare the flows to the historic averages for that time of year. The plots below show how actual river fluctuations over time compare to normal flows based on historic averages. Therefore, it can be seen in the images below, that the rivers are flowing extremely low and approaching levels seen back in 2000 and 2001 (images courtesy of SWFWMD).



For details about some of the lake levels across the region, check the latest "Structure Operations Hydrographs" issued by Southwest Florida Management District (SWFWMD) at the following link:

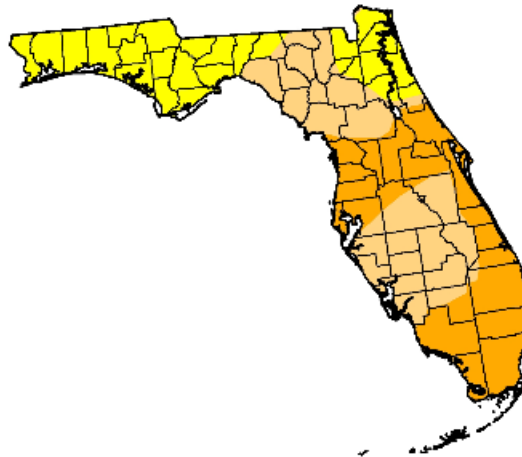
<http://www.swfwmd.state.fl.us/waterres/hydrographs/hydrographs.pdf>

The river flows, lake levels, and lack of rain are just a few of the multiple indices and impacts that go into producing the U.S. Drought Monitor. This product is updated each week and represents a consensus of federal and academic scientists. Therefore, looking at the latest U.S. Drought Monitor, pictured below, we can see that the region is in what is classified as a *Moderate to Severe Drought*. For details about what this means see the table below the graphic.

U.S. Drought Monitor Florida

March 17, 2009
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.2	99.8	70.6	35.1	0.0	0.0
Last Week (03/10/2009 map)	0.2	99.8	56.4	25.0	0.0	0.0
3 Months Ago (12/23/2008 map)	74.7	25.3	6.6	0.0	0.0	0.0
Start of Calendar Year (01/06/2009 map)	44.0	56.0	13.4	0.0	0.0	0.0
Start of Water Year (10/07/2008 map)	75.8	24.2	0.0	0.0	0.0	0.0
One Year Ago (03/18/2008 map)	42.1	57.9	27.5	20.0	3.0	0.0



Intensity:

 D0 Abnormally Dry	 D3 Drought - Extreme
 D1 Drought - Moderate	 D4 Drought - Exceptional
 D2 Drought - Severe	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>

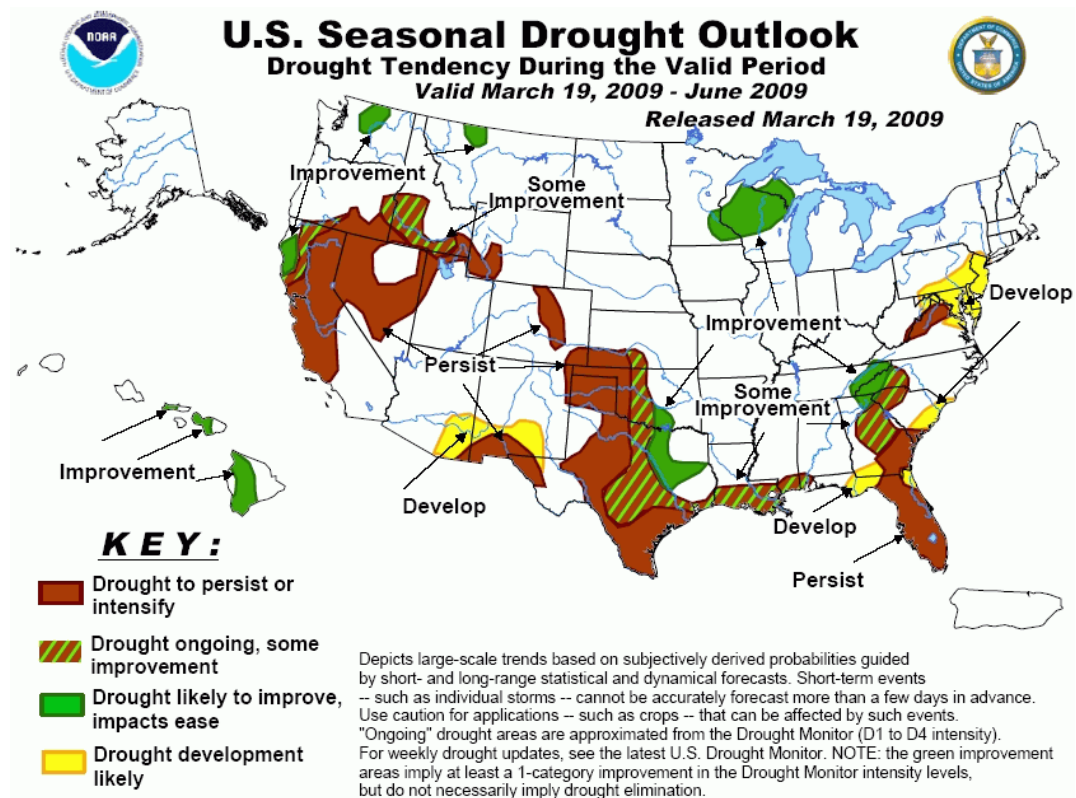


Released Thursday, March 19, 2009

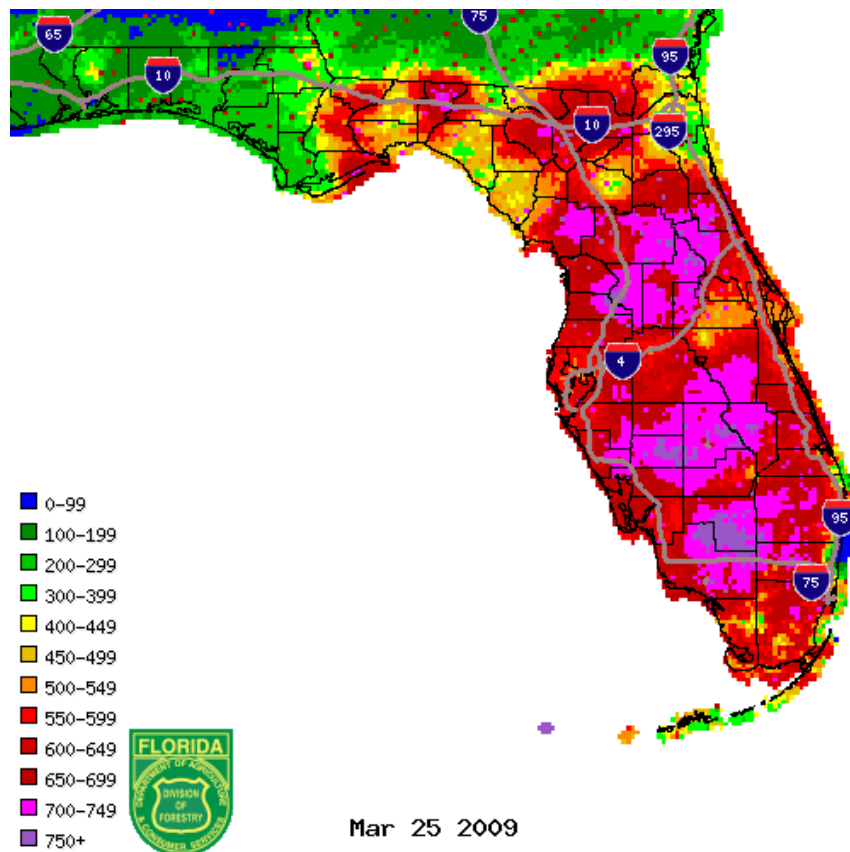
Author: Laura Edwards, Western Regional Climate Center

Drought Severity Classification		
Category	Description	Possible Impacts
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures; fire risk above average. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.
D1	Moderate Drought	Some damage to crops, pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested
D2	Severe Drought	Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed
D3	Extreme Drought	Major crop/pasture losses; extreme fire danger; widespread water shortages or restrictions
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells, creating water emergencies

So now the question becomes “*What is the prospect of seeing rain in the future?* “. Well unfortunately we are heading into what is usually one of the driest times of the year as the storm track begins to shift further north and the cold fronts have a tougher time making it south into Florida. Due to this expectation the U.S. Seasonal Drought Outlook, pictured below, indicates the persistence or intensification of the drought conditions into June 2009.



These conditions combined with the rainfall amounts over the last four months could be setting the stage for an active fire weather season, which usually begins in April and continues until the Summer thunderstorm season begins in late May or early June. This is further supported by the Keetch-Byram Drought Index (KBDI) which gives an indication of the dryness of the soil and surface fuels. It uses a scale that ranges from 0 (no moisture deficit) to 800. High values of the KBDI are an indication that conditions may be favorable for the occurrence and spread of wildfires. As seen below in the image provided by the Florida Division of Forestry, the KBDI values are over 550 across most of West Central and Southwest Florida, with most of Sumter, Desoto and Highlands counties over 700.



For more climate information visit our web site at the following address:
<http://www.weather.gov/tampabay> and then click on the “Local” link in the climate section on the left side of the page.

Other sites:

Drought Monitor:

<http://drought.unl.edu/dm/index.html>

Seasonal Drought Outlook:

http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html

Southwest Florida Water Management District:

<http://www.swfwmd.state.fl.us/drought/>

Keetch-Byram Drought Index (KBDI):

http://flame.fl-dof.com/fire_weather/kbdi/index.html